

They are caught with the hook or by diving after them; some Indians will also catch the sea turtles in this manner and bring them up in their hands, but this feat is attended with danger, from bites and sharp coral. The bocatora tortoise is speckled black and yellow and is found in the larger rivers only. It lays about 20 round eggs in the sand, silt, or even in stiff earth; the eggs are inclosed in a rough calcareous parchment and are considered a great delicacy.

LANCER.—Two varieties of long spears, with fixed points, are employed for striking fish. They are not thrown, but kept in the hand while striking. These implements are found chiefly among the river Indians, Miskito as well as Sumu. The thin, strong staff, which may be from 10 to 15 feet in length, is made from the stem of a tree called by the Ladinos "cacao" (M.: *sakalpihni*; S.: *babarnak*). Of these two implements the more common one (M.: *sihak*; S.: *sakrak*) has a harpoonlike point, similar to that of the javelin or throwing spear. The other one (M. and S.: *daka*) is provided with a pointed piece of thick wire or some other metal, which looks like a nail; for that reason it is called "clavo" by the Ladinos, who also use it in fishing.

FISHHOOKS.—Fishing with the hook (M.: *kyul*; T., P.: *kuyul*; U.: *simia*) is done chiefly by the women, children, and old men. The line is made of silk-grass fiber (*Bromelia* sp.) and is dyed black with vegetable juices, so as to render it less conspicuous. The hooks are of foreign manufacture but in former days crooked bones were used for the purpose. The Indians bait them with worms, spiders, grasshoppers, or fruits (guavas, wild figs).

At certain times of the year when the fruits of the wild fig or of other trees growing along the edge of the river begin to drop, the Indians fish without any bait at all. They flick and cast their long line about, lashing the surface of the water, and letting it sink, presently raising it with a peculiar movement of the wrist. This noise is regarded by the fish as resulting from the dropping of overhanging fruits and they will greedily snap after them and then be caught by the hook.

FISHING NETS.—A small fishing net (M.: *ilis*, *ten*; T.: *willino*; P.: *das*; U.: *yano*), made of silk-grass fiber, is used by both Miskito and Sumu. With its aid they close the mouth of narrow creeks, in order to catch the fish trying to enter the main river. Wickham (b: 238; c: 203) already mentions the use of drag nets among the Ulwa of Rio Escondido; the Indians employed it in low water in the pools scattered among the boulders or rocks in the rapids and falls.

The cast net and the seine have also been introduced recently among the Miskito. The former especially is becoming popular. Having the folded net in his hand, the Indian throws it like a lasso upon the water in such a manner that by a single cast it becomes suspended almost to its whole width, surprising and catching the

227 fish on that spot; the presence of the latter is indicated to him from certain movements on the surface of the water. Lead balls or small round pebbles are attached to the edges of the net in order to keep it down in the water.

226 BOW AND ARROW.—Several river fishes, especially the short, deep, bluish-purple, perchlike species, which is known locally by the Quichua name *tuba* (S.: *pahwa*, *pahawa*, *páw*), are generally killed with bow and arrow. (See Hunting and Fighting Implements.) Two allied fishes, the *moga* (M. and S.: *moba*) and the *guapote* (M.: *sahsa*; S.: *musa*), are also killed in this manner.

The fishermen will sit entire hours at the waterside, keeping up continually a low, plaintive whistling, which is said to entice the fish within arrow shot. This requires great patience, a quality of which the Indian is not lacking, especially when it comes to hunting and fishing. The point of the arrow is held sometimes a foot deep in the water. At the approach of a fish the arrow goes off quick as lightning, and it rarely misses the mark. On account of its feather-light shaft it returns again to the surface and the fish is easily seized. This exercise is extremely difficult, as the true position of the fish is not the one in which it appears to sight, but it varies with the distance of the fish, with the latter's depth in the water, and upon the reflection of the light. In case the fisherman misses the arrow will return to the surface with the same degree as it had been shot down.

[218] FISH "POISONING."—Fish are also caught by "poisoning" the water of small creeks. For this purpose the Indians utilize several vines, especially *Seriania inebrians* (M.: *basala*; T., P.: *wana*; U.: *wahnari*); in Central America all of these varieties are known by the Quichua name "barbasco" or the Aztec "amol" (*amolli*). The vine is crushed with flat stones or wooden clubs, in order to release the poisonous milky juice. At a narrow part the creek has been barred by a sort of weir or fence made of sticks, stones, or branches in the form of an angle with the point in the middle of the stream. At some distance above this spot the crushed plant is thrown in the water, and the poisonous juice will spread and stupefy all the fish in the neighborhood. The latter then float on the surface and are carried down the stream, but they are intercepted by the weir, where they are caught by the Indians standing in the water and thrown on land. Larger fishes, which are not entirely powerless, are easily harpooned in this condition. By this method enormous quantities of fish may be obtained in a short time. The smaller fishes are allowed to float away and recover in the unadulterated water below. The juice of the "barbasco" is also poisonous to man, but it does not affect the taste of fish killed or stupefied with it. This manner of fishing is widespread in both Americas.